

<b>Notice of Allowability</b>	<b>Application No.</b>	<b>Applicant(s)</b>	
	09/483,386	LI-WEN CHEN	
	<b>Examiner</b>	<b>Art Unit</b>	
	Ella Colbert	3624	

**-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--**  
All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

- 1. ☒ This communication is responsive to 21 April 2005.
  - 2. ☒ The allowed claim(s) is/are 2-6, 11, 21-24, 29, 31-33 and 39-55.
  - 3. ☐ The drawings filed on \_\_\_\_\_ are accepted by the Examiner.
  - 4. ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
    - a) ☐ All    b) ☐ Some\*    c) ☐ None    of the:
    - 1. ☐ Certified copies of the priority documents have been received.
    - 2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
    - 3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).
- \* Certified copies not received: \_\_\_\_\_.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.  
**THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.**

- 5. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
  - 6. ☒ CORRECTED DRAWINGS ( as "replacement sheets") must be submitted.
    - (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review ( PTO-948) attached
      - 1) ☐ hereto or 2) ☐ to Paper No./Mail Date \_\_\_\_\_.
    - (b) ☒ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date 081505.
- Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).**
- 7. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

**Attachment(s)**

- |  |  |
|--|--|
| 1. <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)  | 5. <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)            |
| 2. <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)   | 6. <input type="checkbox"/> Interview Summary (PTO-413),<br>Paper No./Mail Date _____. |
| 3. <input checked="" type="checkbox"/> Information Disclosure Statements (PTO-1449 or PTO/SB/08),<br>Paper No./Mail Date <u>24 July 2000</u> | 7. <input checked="" type="checkbox"/> Examiner's Amendment/Comment                    |
| 4. <input type="checkbox"/> Examiner's Comment Regarding Requirement for Deposit<br>of Biological Material                                   | 8. <input checked="" type="checkbox"/> Examiner's Statement of Reasons for Allowance   |
|  | 9. <input type="checkbox"/> Other _____.   |

### **DETAILED ACTION**

1. Claims 2-6, 11, 21-24, 29, 31-33, and 39-55 are pending in this communication filed 04/21/05 entered as Response After Non-Final Action. Claims 43, 48, and 54 have been amended to overcome the 35 U.S.C. 101 rejections.
2. The 35 U.S.C. 101 rejection of claims 43-55 is hereby withdrawn in view of Applicants' amendments to claims 43, 48, and 54.

### ***Drawings***

3. New corrected drawings in compliance with 37 CFR 1.121(d) are required in this application because Figure 1 does not show a "Fig. 1" label at the bottom of the drawing and the shading needs to be removed; Fig. 1B the shading of element "138" needs to be removed and Fig.'s 2D, 4A, 4B, 4C, and 4D need to have the shading removed; Fig. 5B has the drawing too close to the top of the page; and Fig.'s 1-19 appear to be crooked on the page. Applicant is advised to employ the services of a competent patent draftsman outside the Office, as the U.S. Patent and Trademark Office no longer prepares new drawings. The corrected drawings are required in reply to the Office action to avoid abandonment of the application. The requirement for corrected drawings will not be held in abeyance.

### ***Allowable Subject Matter***

4. Claims 2-6, 11, 21-24, 29, 31-33, and 39-55 are allowed for the reasons stated herein below.
5. The following is an Examiner's statement of reasons for allowance: Applicants' invention is closely related to previous work in the field of data warehousing.

Inmon, W. H.; "ACM Digital Library" has OLAP data mart which is an architectural extension of a data warehouse and has metadata but fails to suggest a virtual data model comprises a reverse star schema, code for generating a data warehouse populated with the information from the source database and according with the reverse star schema meta-model, the meta-model schema is a reverse star schema, and the virtual meta-model schema is a reverse star schema. Bontempo, Charles and Zagelow, George has a data warehouse architecture with mappings and business views, but fails to suggest a virtual data model comprises a reverse star schema, code for generating a data warehouse populated with the information from the source database and according with the reverse star schema meta-model, the meta-model schema is a reverse star schema, and the virtual meta-model schema is a reverse star schema. Anand, Tejwansh Sing et al (EP 0840240 A2) has metadata to populate the data warehouse with a customizable view of the data, but fails to suggest a virtual data model comprises a reverse star schema, code for generating a data warehouse populated with the information from the source database and according with the reverse star schema meta-model, the meta-model schema is a reverse star schema, and the virtual meta-model schema is a reverse star schema. "SelectStar Ships StarTrieve Version 1.5; Relational OLAP Tool Offers Power And Simplicity" has relational OLAP, multidimensional 'slice and dice', but fails to suggest a virtual data model comprises a reverse star schema, code for generating a data warehouse populated with the information from the source database and according with the reverse star schema meta-model, the meta-model schema is a reverse star schema, and the virtual meta-

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model schema is a reverse star schema. Krippendorf, Michael and Il-Yeol Song have a star schema, a Snowflake Schema, OLTP databases, and data warehouses, but fails to suggest a virtual data model comprises a reverse star schema, code for generating a data warehouse populated with the information from the source database and according with the reverse star schema meta-model, the meta-model schema is a reverse star schema, and the virtual meta-model schema is a reverse star schema, in conjunction with the other claim limitations was not disclosed by, would not have been obvious over, nor fairly suggested by the prior art of record.

6. The dependent claims 2-11, 21-24, 31-42, 44-47, 49-53, and 55 being further limiting to the independent claims, definite and fully enabled by the Specification are also allowable.

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

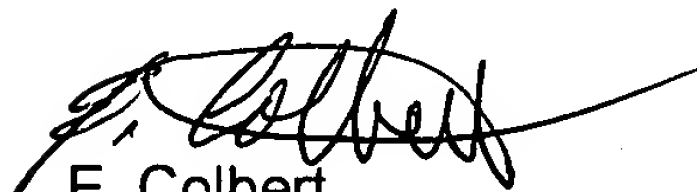
#### **Inquiries**

7. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Ella Colbert whose telephone number is 571-272-6741. The examiner can normally be reached on Monday-Thursday, 6:30AM-5:00PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Vincent Millin can be reached on 571-272-6747. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



E. Colbert  
August 15, 2005



VINCENT MILLIN  
SUPERVISORY PATENT EXAMINER  
TECHNOLOGY CENTER 3600